

Notice of Allowability

Application No.

09/648,657

Examiner

Anita K Alanko

Applicant(s)

CHIKAMA ET AL.

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/10/04 amdt and 6/11/04 interview summary.
2. ☒ The allowed claim(s) is/are 1, 2, 4-9 and 11-15.
3. ☒ The drawings filed on 25 August 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 0604.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Anita K. Alanko
Anita K Alanko
Primary Examiner
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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Alexander on June 11, 2004.

Basis for this amendment can be found in the specification, for example, at page 11, lines 10-15.

The application has been amended as follows:

In the specification:

On page 14, line 18, after "Figs. 3A, 3B, 3C" insert -- and 3D --

In the claims:

Claim 1 (amended). A method for fabricating metal wirings, comprising the steps of:

forming a ground resin film by applying a resin onto an insulating substrate;

patterning the ground resin film; and

forming a low-resistance metal film selectively over the patterned ground resin film by a wet film formation technique wherein the patterned ground resin film is enclosed by the low-resistance metal film and the insulating substrate, wherein the low-resistance metal film is a single layer film containing any one of Cu, Ni, Sn, Au, Ag, Cr, or Pd or the low-resistance metal film is a multilayer film containing at least one single layer film containing Cu, Ni, or Au, thereby forming said metal wiring without using any etching technique.

Cancel claim 16.

The following is an examiner's statement of reasons for allowance: the prior art does not teach or suggest a method for fabricating metal wirings, comprising the steps of:

forming a ground resin film by applying a resin onto an insulating substrate;

patterning the ground resin film; and

forming a low-resistance metal film selectively over the patterned ground resin film by a wet film formation technique wherein the patterned ground resin film is enclosed by the low-resistance metal film and the insulating substrate, wherein the low-resistance metal film is a single layer film containing any one of Cu, Ni, Sn, Au, Ag, Cr, or Pd or the low-resistance metal film is a multilayer film containing at least one single layer film containing Cu, Ni, or Au, thereby forming said metal wiring without using any etching technique, as in the context of claim 1.

The closest prior art, Takada et al, discloses forming a metal film on a ground resin film, however the wiring is formed by etching, not without etching, as in the context of claim 1. There is no motivation to omit the etching step in Takada since it is required to form the final product.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon, Tues & Fri: 8:30 am-5 pm; Wed & Thurs: 10 am-2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita K. Alanko

Anita K Alanko
Primary Examiner
Art Unit 1765